

## ABSTRACT

A method and system of forming a fire door core are provided. Hydraulic binder and resin are supplied from raw material bins and mixed to provide a submixture.

Exfoliated vermiculite is then mixed with the submixture to provide a mixture that is

- 5 deposited into a plurality of compression molds. Each of the filled molds are pressed in a press at a predetermined temperature at a predetermined pressure for a predetermined period of time sufficient to harden the mixture into a hardened slab. The hardened slabs are then removed from the molds, impregnated with water or steam in a water impregnation assembly and dried in a drying assembly.